

R E M A R K S

Claims 1 to 19 as set forth in Appendix I of this paper are now pending in this case. Claims 1 and 2 have been amended and Claims 13 to 19 have been added as indicated.

Applicants have revised Claim 1 to better bring out the nature of the isobutene polymer constituent. To this end, applicants have introduced the molar mass specified in Claim 2 and have deleted the reference to a "*high molecular mass*". Claim 2 has been revised accordingly. Additionally, applicants have introduced the clarification that the isobutene content of the isobutene polymer constituent is at least 80% by weight corresponding to the disclosure on page 2, indicated lines 38 to 41, of the application. New Claims 13 to 19 have been added to further bring out some of the characteristics of the isobutene polymer constituent which are addressed on page 2, indicated line 41, to page 3, indicated line 16, of the application. No new matter has been added.

The Examiner rejected Claims 1 to 12 under 35 U.S.C. §112, ¶2, as being indefinite for failing to specify the meaning of "*high molecular mass*". Withdrawal of the respective rejection is requested in light of applicants' amendment. Favorable action is respectfully solicited.

The Examiner rejected Claims 1, 3 to 5 and 12 under 35 U.S.C. §102(b) as being anticipated by the teaching of **GB 993,794**, citing the disclosure of **Lance-Gomez et al.** (US 5,393,521) as evidence that the silicon oil SF96(100) which is mentioned in **GB 993,794** has a viscosity within the range recited in applicants' Claim 5.

Anticipation under Section 102 can be found only if a reference shows exactly what is claimed<sup>1)</sup>. A generic disclosure is not sufficient to anticipate each species or subgenus which happens to fall within the generic range of the disclosure<sup>2)</sup> because the test for

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1) Cf. Titanium Metals Corp. v. Banner, 778 F.2d 775, 227 USPQ 773 (CAFC 1985); In re Marshall 577 F.2d 301, 198 USPQ 344 (CCPA 1978); In re Kalm 378 F.2d 959, 154 USPQ 10 (CCPA 1967)

2) Note in particular Corning Glass Works v. Sumitomo Electric U.S.A., 868 F.2d 1251, 9 USPQ2d 1962 (CAFC 1989), and Minesota Mining & Manufacturing Co. v. Jophnson & Johnson Orthopaedics, Inc., 976 F.2d 1559, 24 USPQ2d 1321 (CAFC 1992), which emphasize that a genus does not inherently disclose all species; and also In re Jones, 958 F.3d 347, 21 USPQ2d 1614 (CAFC 1992), and In re Baird, 16 F.3d 380, 29 USPQ2d 1550 (CAFC 1994), which point out that a genus does not even render all species that happen to fall within the genus obvious.

anticipation is one of identity, and to anticipate a claimed invention within the meaning of Section 102 the reference has to show the identical subject matter in as complete detail, including the part-to-part relationship, as is contained in the claim<sup>3)</sup>.

Applicants' wax formulation is characterized in accordance with the provisions of Claim 1 as a formulation which comprises

- a) at least one wax constituent, and
- b) at least one isobutene polymer constituent, which has a isobutene content of more than 80% by weight and a molar mass (weight average) of at least 500000,

and which contains the isobutene polymer constituent (b) in amount of from 0.1 to 5 parts by weight per part by weight of the wax constituent (a).

The teaching of **GB 993,794** provides for a composition which comprises<sup>4)</sup>

- (1) a wax,
- (2) an essentially linear addition polymer in the form of discrete particles of a particular size, and
- (3) a hydrophobic polymeric dispersing agent for the linear polymer.

The essentially linear addition polymer (2), which is also referenced in **GB 993,794** as "*the dispersed polymer*"<sup>5)</sup>, is obtained by emulsion polymerization of ethylenically unsaturated monomers such as vinylidene chloride, vinyl esters, acrylic and methacrylic acid as well as derivatives thereof such as esters, amides and nitriles, styrenes and the like<sup>6)</sup>. Isobutene is not mentioned by **GB 993,794** in the context of monomers for the preparation of the linear addition polymer (2). The teaching of **GB 993,794** concerning the addition polymer (2) can therefore not be considered as being relevant with regard to the isobutene polymer constituent (b) of applicants' formulation.

The hydrophobic polymeric dispersing agent (3) of the composition addressed in **GB 993,794** is a graft copolymer<sup>7)</sup> which comprises, as a

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3) Cf. Richardson v. Suzuki Motor Co., 868 F.2d 1226, 9 USPQ2d 1913 (CAFC 1989); Lindemann Maschinenfabrik v. American Hoist & Derrick Co., 730 F.2d 1452, 221 USPQ 481 (CAFC 1984).

4) Cf. page 1, indicated lines 13 to 19, of **GB 993,794**.

5) Cf. page 1, indicated lines 74 and 75, of **GB 993,794**.

6) Cf. page 2, indicated lines 42 to 82, of **GB 993,794**.

7) Cf. page 1, indicated lines 57 to 59, and indicated line 72, to page 2, indicated line 6, of **GB 993,794**.

first distinct component or "grafting base", a polymer component which exhibits a stronger affinity for a liquid hydrocarbon than for the "dispersed polymer" (2)<sup>8)</sup> and, as a second distinct component or "graft", a polymer component which exhibits a stronger affinity to the "dispersed polymer" than for a liquid hydrocarbon<sup>9)</sup>. The second distinct component or "graft" of the dispersing agent (3) is formed from the same monomers as as employed in the preparation of the "dispersed polymer"<sup>10)</sup>, and accordingly contains no isobutene moieties. The first distinct component or "grafting base" of the dispersing agent (3) is composed of a natural or synthetic rubber<sup>11)</sup> including inter alia "polyisobutene, polyisoprene, polychloroprene, copolymers of isoprene and isobutylene, particularly those containing from 1 to 25% of isoprene, and copolymers of chloroprene and isobutylene"<sup>12)</sup>. **GB 993,794** does not provide generic information concerning the weight ratio of the graft component to the grafting base component or other information which would allow for a determination of the isobutene content of the dispersing agent (3). The data concerning Experiment A<sup>13)</sup> are lacking in that regard because the isobutylene content of the isobutylene/isoprene rubber is not specified. It is, however, indicated that 33 parts by weight of the rubber are grafted with a total of 283.6 parts of a mixture of methyl methacrylate and ethyl acrylate before the "dispersed polymer" (2) is prepared *in situ* by adding a mixture comprising 141.8 parts of methyl methacrylate and 141.8 parts of ethyl acrylate and a peroxide. It is evident from the data which are available from the teaching of **GB 993,794** that the isobutene content of the dispersing agent is considerably lower than the 80% by weight which are required for the isobutene polymer constituent of applicants' formulation.

Accordingly, the teaching of **GB 993,794** cannot be deemed to identically show the subject matter defined in applicants' Claim 1 in the detail and specificity which is necessary for a finding of anticipation under Section 102. It is therefore respectfully requested that the rejection of Claims 1, 3 to 5 and 12 based on **GB 993,794** be

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8) Cf. page 2, indicated lines 34 to 47, of **GB 993,794**.

9) Cf. page 2, indicated lines 48 to 56, of **GB 993,794**.

10) Cf. page 1, indicated line 73, to page 2, indicated line 92, of **GB 993,794**.

11) Cf. page 2, indicated lines 93 to 101, of **GB 993,794**.

12) Cf. page 2, indicated lines 109 to 113, of **GB 993,794**.

13) Cf. page 4, indicated lines 38 to 71, of **GB 993,794**.

withdrawn<sup>14</sup>). Favorable action is solicited.

For completeness sake it is further respectfully submitted that the teaching of **GB 993,794** cannot be deemed to render applicants' formulation obvious within the meaning of Section 103(a). Obviousness under Section 103(a) requires that the prior art would have motivated a person of ordinary skill in the art to do what the applicant has done<sup>15</sup>). The mere fact that the prior art may be modified in some manner so as to result in the invention as claimed does not make such a modification obvious unless the prior art suggests the desirability of such a modification<sup>16</sup>). The teaching of **GB 993,794** contains nothing which suggests or implies that it is desirable to employ an isobutene polymer constituent which has an isobutene content of more than 80% by weight and a molar mass of at least 500,000 instead of or in addition to the the dispersing agent (3) in the composition of **GB 993,794**. Accordingly, the teaching of **GB 993,794** fails to provide for the motivation to modify which is necessary for a finding of obviousness under Section 103(a). Favorable action is respectfully solicited.

The Examiner rejected Claims 1, 3 to 5, 8 to 10 and 12 under 35 U.S.C. §102(b) as being anticipated by the teaching of **Each et al.** (US 5,445,670), citing the disclosure of **Hoffman** (US 4,678,815) as evidence that the silicon oil SWS-214 which is mentioned by **Each et al.** has a viscosity within the range recited in applicants' Claim 5.

The teaching of **Each et al.** relates to an abrasive-containing surface-finish composition which, in one embodiment, comprises water, at least one acrylic resin and at least one synthetic wax<sup>17</sup>) such as polyalkylene waxes, for example polyethylene wax, polypropylene wax, polybutylene wax, polyisobutylene wax and the like<sup>18</sup>). The isobutene polymer constituent of applicants' formulation is a polymer having a molar mass of at least 500,000, and is therefore outside of the realm of waxes as referenced by **Each et al.**

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14) If an independent claim is non-obvious under 35 U.S.C. §103, then any claim depending therefrom is non-obvious (In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (CAFC 1988)). Anticipation is the ultimate or epitome of obviousness (In re Grose, 592 F.2d 1161, 201 USPQ 57 (CCPA 1979)).

15) Cf. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438, 1442 (CAFC 1991).

16) Cf. In re Fritch, 972 F.2d 1260, 23 USPQ2d 1780, 1783-84 (CAFC 1992); In re Gordon, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (CAFC 1984).

17) Cf. col. 1, indicated lines 50 to 52, of **US 5,445,670**.

18) Cf. col. 3, indicated line 13 et seq., of **US 5,445,670**.

The surface finish of *Each et al.* also optionally contains inter alia one or more alkali-soluble resins<sup>19)</sup>, ie. resins which contain carboxyl groups and which have a solubility in water of at least 1 g/l at 25°C<sup>20)</sup>. Among representatives of such resins, *Each et al.* inter alia mention carboxyl-containing polyisobutylene and carboxyl containing copolymers comprising isobutylene<sup>21)</sup>.

In contrast to the alkali-soluble resins which are optionally employed in the surface finish of *Each et al.*, the isobutene polymer constituent of applicants' formulation are hydrophobic which means that the isobutene polymer constituent of applicants' formulation has a solubility in water of less than 1 g/l at 25°C<sup>22)</sup>. The isobutene polymer constituent of applicants' formulation is therefore outside of the realm of the alkali-soluble resins which are mentioned by *Each et al.*

Accordingly, the teaching of *Each et al.* cannot be deemed to identically show the subject matter defined in applicants' Claim 1 in the detail and specificity which is necessary for a finding of anticipation under Section 102. It is therefore respectfully requested that the rejection of Claims 1, 3 to 5, 8 to 10 and 12 based on *Each et al.* be withdrawn<sup>23)</sup>. Favorable action is solicited.

For completeness sake it is further respectfully submitted that the teaching of *Each et al.* cannot be deemed to render applicants' formulation obvious within the meaning of Section 103(a). As stated in the foregoing, obviousness under Section 103(a) requires more than the mere possibility to modify the prior art in some manner so as to arrive at the invention as claimed<sup>24)</sup>. For obviousness under Section 103(a) it is also required that the prior art contains something which would suggest to a person of ordinary skill in the art that it is desirable to do what the applicant has done<sup>25)</sup>. The teaching of *Each et al.* contains nothing which suggests or implies that it is desirable to employ a hydrophobic isobutene polymer constituent which has an isobutene content of more than 80% by weight and a molar mass of at least 500,000 instead of or in addition to the alkali-soluble

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19) Cf. col. 1, indicated lines 52 to 57, of US 5,445,670.

20) Cf. col. 3, indicated lines 33 to 37, of US 5,445,670.

21) Cf. col. 3, indicated lines 37 to 42, of US 5,445,670.

22) Cf. page 2, indicated lines 43 to 44, and new Claim 13, of the application.

23) Cf. ftn. (14) on page 5 of this paper.

24) Cf. ftn. (16) on page 5 of this paper.

25) Cf. ftn. (15) on page 5 of this paper.

resins which are optionally employed in the surface finish of *Each et al.* Accordingly, the teaching of *Each et al.* fails to provide for the motivation to modify which is necessary for a finding of obviousness under Section 103(a). The teaching of *Each et al.* can also not be deemed to render the subject matter of applicants' Claims 6, 7 and 11 obvious within the meaning of Section 103(a) because applicants' Claims 6, 7 and 11 depend either directly or indirectly upon Claim 1 and incorporate the requisite requirements by reference<sup>26</sup>). It is therefore respectfully requested that the rejection of Claims 6, 7 and 11 under Section 103(a) based on the teaching of *Each et al.* be withdrawn. Favorable action is respectfully solicited.

The Examiner rejected Claim 1 under 35 U.S.C. §102(b) as being anticipated by the teaching of *Yagani et al.* (JP 62/154,555) which relates to a battery sealing agent which comprises a wax and a polymer mainly comprising isobutylene having a mean molecular weight of from 700 to 10,000. The molecular weight of the isobutylene polymer which is employed in the sealing agent of *Yanagi et al.* is, however, distinctly lower than the molecular weight or "molar mass" of the isobutene polymer constituent (b) which is employed in applicants' wax formulation. It is therefore respectfully requested that the rejection of Claim 1 under Section 102(b) based on the teaching of *Yanagi et al.* be withdrawn. Favorable action is respectfully solicited.

In this context applicants wish to thank Examiner Peng for the offer to provide applicants with an English language translation of *Yanagi et al.* The Examiner's offer is greatly appreciated, and applicants accordingly request that the translation be forwarded to applicants' representative.

REQUEST FOR EXTENSION OF TIME:

It is respectfully requested that a one month extension of time be granted in this case. The Commissioner is hereby authorized to charge the requisite \$120.00 fee to Deposit Account No. 11.0345.

Please charge any shortage in fees due in connection with the filing of this paper, including Extension of Time fees, to Deposit

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26) Cf. ftn. (14) on page 5 of this paper.

Account No. 11.0345. Please credit any excess fees to such deposit account.

Respectfully submitted,

KEIL & WEINKAUF



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Encl.: THE LISTING OF CLAIMS (Appendix I)

HBK/BAS